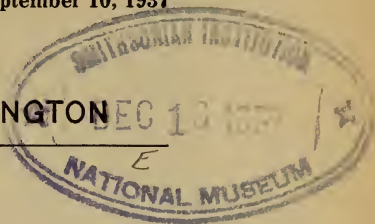


PROCEEDINGS  
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A NEW SNAKE FROM SOUTHEASTERN CHINA.

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The following new species was collected on a trip to southeastern China made by the writer during the summer of 1936. The localities visited on the trip were in eastern Kwantung, southeastern Kiangsi, and southwestern Fukien provinces, the material of the herein described species having been collected in the first two provinces named. The snake was probably collected near the eastern extremity of its range, as specimens undoubtedly belonging to the same species, though misidentified, have been recorded from farther west in southern China, and the regions to the east have been extensively collected. The specimens are all now in the collection of the Museum of Vertebrate Zoology, University of California, Berkeley. The writer is indebted to Dr. J. Grinnell and Dr. J. M. Linsdale for kindnesses in connection with this study.

Genus *NATRIX* Laurenti, 1768.

*Natrix boulengeri*, new species.

*Tropidonotus modestus*, Mell, 1922, Arch. Naturg., 88, A, 10 : 116; Vogt., 1922, l. c., p. 137. (N. Kwantung; not of Guenther, 1875.)

*Natrix khasiensis* > *gilhodesi*, Mell, 1931, Lingnan Sci. Journ., 8 : 203. (N. Kwantung; not of Boulenger, 1890, or Wall, 1925.)

*Natrix*, Pope, 1935, Nat. Hist. Centr. Asia, 10 (Rept. China) : 90.

*Type*.—Adult female; No. 23623, Mus. Vert. Zool.; from Tai-yong, alt. 640 meters, E. Kwantung province, southeastern China (lat. 23° 34' N., long. 115° 55' E.), Aug. 5, 1936, J. L. Gressitt (Orig. no. 1487).

*Paratype*.—Adult female (somewhat dried); No. 23622, Mus. Vert. Zool.; from Hong San, alt. 850 meters, S. Kiangsi province, southeastern

China (lat. 24° 58' N., long. 115° 50' E.), June 30, 1936, J. L. Gressitt (Orig. no. 970).

*Diagnosis.*—A small, grayish black *Natrix* with pair of white stripes on side of head which continue on body as a pair of narrow pinkish brown dorsal stripes, and with labials and chin-shields that are largely black, or spotted with black. Ventrals 143–147, subcaudals 85–102; scale rows 19–19–17, all but outermost keeled, though weakly so. Closely allied with *N. craspedogaster* (Boul.), but with one pre- and two post-oculars, the nuchal white stripe arising from eye and the lateral black spots on sides of ventrals nearly as broad as long anteriorly, broader than long posteriorly, with external portions mottled.

*Description of type.*—Narrow; neck slender; head broad behind middle, attenuated anteriorly; snout narrowed, truncate.

Maxillary teeth 28 on right side.

Rostral nearly half again as broad as deep, barely visible from above; internasals as long as broad, narrowed apically and rounded externally; prefrontals one-fourth longer than internasals, their dorsal portions nearly square; frontal one-half again as long as broad, barely longer than interparietal suture, one-eighth longer than its distance from end of snout, two-thirds as broad at supraoculo-parietal suture as at anterior margin, which latter is nearly transverse, subacute behind; supraoculars one-half as broad as, and slightly shorter than, frontal; parietals seven-twelfths as broad as long. Nasal nearly twice as long as high, upper part of division behind nostril, which is in center; loreal subrectangular, two-thirds again as long as broad; preoculars single, nearly twice as broad above as below; eye very small, its length hardly more than one-half length of snout; postoculars 2–2, superior ones four and three times as large as inferior, respectively; temporals 1–1–2 on each side, first at least twice as long as second, third set with outer considerably larger than inner on each side. Supralabials 9–9, fourth, fifth and sixth “entering” eye, first four small, consecutively larger, seventh, eighth and ninth very large, subequal in area; mental slightly broader than long, narrowed and acute apically; infra-labials 9–10, first five in contact with anterior chin-shields; anterior chin-shields two-thirds as long as, and equal in width to, posterior pair. Body scales in 19 rows from one and one-half head lengths behind head to two or three head lengths beyond middle of body, in 17 rows before vent; outermost row unkeeled, remainder finely keeled. Ventrals 144, anal divided; tail incomplete. Total length, 462 mm.; snout to vent, 399.

Color largely gray and black above, with a pair of pale longitudinal dorsal stripes. Head dark brownish black, dorsal surface finely vermiculated with gray, a pair of small gray-white spots before middle of parietals; lower portions of nasal, loreal and preocular partially mottled with gray; a striking, ivory-white stripe on each side, commencing on inferior postocular and upper hind corner of sixth supralabial, extending slightly obliquely, in a straight line, to side of top of nape, from where it continues as one of the dorsal stripes; first four supralabials black below, speckled above, fifth speckled anteriorly, black posteriorly, sixth largely black on upper half, speckled below; last three largely pure black except for the ivory-white

stripe, which crosses their upper portion; infralabials partly black, partly white and black-spotted; chin-shields partly black-spotted. Body gray-black to blue-black, finely speckled with white on sides, crossed by irregular fasciae formed of indistinct black spots; stripes on sides of head continued along sides onto tail, anteriorly on seventh and eighth, and beyond middle of body on fifth and sixth, scale rows, as a pair of narrow, pinkish brown stripes, paler near vent, anteriorly formed of more or less joined, elongate-oblong spots. Ventrals creamy white, each with a squarish black spot on each side, separated from external margin by a finely black-mottled area which on anterior ventrals form a more or less distinct narrow light stripe.

*Notes on paratype.*—Agrees fairly well with the type in scutellation, pattern and color; preocular of each side with the suggestion of a rudimentary division in middle; fifth (?) supralabial missing on each side, leaving only two "entering" eye; pale vermiculations of top of head less distinct. Maxillary teeth 29 on right side, 28 on left. Ventrals, 145; subcaudals, 94. Total length, 658 mm.; tail, 219, or .302 of total length.

*Comparisons.*—This species is closely related to *N. inas* (Laidlaw) (Proc. Zool. Soc. London, 1901 : 576, pl. 35, fig. 2), of Perak, Malay Peninsula, and to *N. craspedogaster* (Boulenger) (t. c., 1899 : 163, pl. 17), of S. China. It differs from the former in having the frontal slightly longer than its distance from the end of the snout, in having three, instead of two, labials reaching the eye, the labials more extensively marked with black, and the nuchal stripe arising from the eye instead of the mouth, and from the latter in having the eye smaller, two instead of three, postoculars, the white stripe commencing at lower hind corner of eye instead of the mouth, the labials largely, instead of merely edged with, black, and the lateral dark spots of ventrals broader. *Boulengeri* is distinguished from *N. modestus* (Guenther) (Proc. Zool. Soc. London, 1875 : 232) by being more grayish black than olive brown, by the presence of the white stripe from the eye to the top of the neck, and the oblong loreal, and there being two, instead of three, postoculars, and from *khasiensis* (Boul.) (Faun. Brit. India, Rept. & Batr., 1890 : 344) by its weakly keeled scales, smaller eyes, two, instead of three, postoculars, and irregularly black-spotted labials.

*Remarks.*—This novelty is doubtless the same species as the two specimens from N. Kwantung identified by Mell as *Tropidonotus modestus* and *Natrix khasiensis* > *gilhodesi*, and described, though not named, by Pope (see refs. in synonymy, above). Pope stated that quite likely the specimens recorded as *Tropidonotus johannis* Boul. from the Langbian Plateau, S. Annam, by Smith (Proc. Zool. Soc. London, 1921 : 426) were identical with Mell's N. Kwantung material, but Smith's had the white stripe arising from near the mouth. Anderson (1879, Anat. zool. res. . . . two exped. to W. Yunnan, London : 817) described two specimens of *Natrix* from Yunnan as *Tropidonotus modestus* Guenther, but these apparently belong neither to *modestus* nor *boulengeri*. His specimens had 152 and 154 ventrals, 110 and 122 subcaudals, respectively, and the nuchal stripes arose from the mouth.

*Habits.*—The type contained three large elongate-oblong eggs, 22 to 29 mm. long and 7 to 11 mm. in diameter, with no evident embryos, so the

species is doubtless oviparous. Both of the writer's specimens came from rice-fields or paths in the vicinity of small streams in mountain valleys between two and three thousand feet in altitude. Mell (1922, Arch. Naturg., 88, A, 10 : 116) described the habitat of his specimens as being 600 to 900 meters above the sea, at the edge of shady, rocky streams and in partly shaded, damp and rocky-floored groves. He lists four localities, though Pope (1935, Rept. China: 90) only mentioned seeing two specimens in the Berlin Museum collected by Mell. Including Mell's specimens, the known range of the species is 23°.30' to 26° N. lat. and 114° to 116° E. long.

*Dedication.*—This species is named in honor of Dr. George Albert Boulenger, veteran herpetologist and describer of *Natrix craspedogaster* as well as of very many other Chinese reptiles and amphibians, not to mention those of other countries.